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## NOTICE OF ALLOWANCE AND FEE(S) DUE

22428 7590 09/21/2010

FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

NGUYEN, DUSTIN

ART UNIT

PAPER NUMBER

2454

DATE MAILED: 09/21/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,878

02/20/2004

Kiyoshi Shinomiya

017446-0353

5080

TITLE OF INVENTION: INTER-COMPUTER DATA TRANSFER METHOD AND INTER-COMPUTER NETWORK SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/21/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22428 7590 09/21/2010

**FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007**

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,878 02/20/2004 Kiyoshi Shinomiya 017446-0353 5080

**TITLE OF INVENTION: INTER-COMPUTER DATA TRANSFER METHOD AND INTER-COMPUTER NETWORK SYSTEM**

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/21/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, DUSTIN	2454	709-200000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

**NOTE:** The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,878	02/20/2004	Kiyoshi Shinomiya	017446-0353	5080
22428	7590	09/21/2010	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			NGUYEN, DUSTIN	
			ART UNIT	PAPER NUMBER
			2454	
DATE MAILED: 09/21/2010				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 876 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 876 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/781,878	SHINOMIYA, KIYOSHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	DUSTIN NGUYEN	2454	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/03/2010.
2. ☒ The allowed claim(s) is/are 1-3, 5-7, 11-14, 15-17, 19 and 20, now renumbered as 1-15.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.   |

/DUSTIN NGUYEN/  
Primary Examiner, Art Unit 2454

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicants' attorney, Mr. George Beck, on 09/10/2010.

Please amend the claims as follow:

1. (Currently Amended) An inter-computer data transfer method for transferring data between a plurality of computers each including a main storage device, a processor for issuing a communication process command and a communication device for processing the communication command from said processor and communicating with another one of said computers through a switched network, comprising the step of:

each of a transmission section and a reception section of said communication device including a translation look aside buffer for retaining a plurality of translation look aside buffer entries;

determining, when a communication command including information of that one of the computers which is a sending source is issued from said processor, one of the translation look

Art Unit: 2454

aside buffer entries which is to be used in accordance with the computer of the sending source by means of said reception section,

wherein the communication command further includes a destination computer number, a destination process number, a destination logical address, a transfer length representative of a length of data to be transferred, a sending source computer number, a sending source process number, and a sending source logical address,

wherein the communication command is transmitted divisionally in a plurality of communication packets over the switched network, in order to assure reliability of communication, ~~and~~

wherein an identification number of a processing command in the computer of the sending source is applied to a communication packet by said communication device, and for different communication packets which have the same identification number of the processing command, the same translation look aside buffer entry is used by said reception section of said communication device;

wherein said transmission section of said communication device extracts a communication command from said main storage device in accordance with an instruction from said processor, converts a logical address of data of the sending source in the communication command into a physical address, extracts transmission data from said main storage device, produces a communication packet from the extracted data and the communication command and transmits the communication packet to a destination computer; and

wherein said reception section of said communication device receives a communication packet from said switched network, converts a destination logical address into a destination

Art Unit: 2454

physical address for said main storage device and writes data in the communication packet into the destination physical address.

5. (Currently Amended) An inter-computer network system, comprising:

a plurality of computers connected to each other through a switched network;

each of said computers including a main storage device, a processor for issuing a communication processing command, and a communication device for processing the communication command from said processor and communicating with another one of said computers through said switched network;

said communication device including a transmission section for transmitting a communication to said switched network and a reception section for receiving a communication from said switched network;

each of said transmission section and said reception section including a translation look aside buffer for retaining a plurality of translation look aside buffer entries;

said processor issuing the communication command which includes information of that one of the computers which is a sending source;

said reception section determining one of the translation look aside buffer entries which is to be used in accordance with the computer of the sending source,

wherein the communication command further includes a destination computer number, a destination process number, a destination logical address, a transfer length representative of a length of data to be transferred, a sending source computer number, a sending source process number, and a sending source logical address,

wherein the communication command is transmitted divisionally in a plurality of communication packets over the switched network, in order to assure reliability of communication, ~~and~~

wherein said communication device applies an identification number of a processing command in the computer of the sending source to a communication packet, and said reception section uses the same translation look aside buffer entry for different communication packets which have the same identification number of the processing command;

wherein said transmission section of said communication device extracts a communication command from said main storage device in accordance with an instruction from said processor, converts a logical address of data of the sending source in the communication command into a physical address, extracts transmission data from said main storage device, produces a communication packet from the extracted data and the communication command and transmits the communication packet to a destination computer; and

wherein said reception section of said communication device receives a communication packet from said switched network, converts a destination logical address into a destination physical address for said main storage device and writes data in the communication packet into the destination physical address.

9. (Cancelled).

10. (Cancelled).



Art Unit: 2454

15. (Currently Amended) An inter-computer data transfer method for transferring data between a plurality of computers each including a main storage device, a processor for issuing a communication process command and a communication device for processing the communication command from said processor and communicating with another one of said computers through a switched network, comprising the steps of:

each of a transmission section and a reception section of said communication device including a translation look aside buffer for retaining a plurality of translation look aside buffer entries;

determining, when a communication command including information of that one of the computers which is a sending source is issued from said processor, one of the translation look aside buffer entries which is to be used in accordance with the computer of the sending source by means of said reception section,

wherein said processor does not carry out any address conversion but instead sends out the communication command and a logical address to said communication device,

wherein an identification number of a processing command in the computer of the sending source is applied to a communication packet by said communication device, and for different communication packets which have the same identification number of the processing command, the same translation look aside buffer entry is used by said reception section of said communication device;

wherein said transmission section of said communication device extracts a communication command from said main storage device in accordance with an instruction from

Art Unit: 2454

said processor, converts a logical address of data of the sending source in the communication command into a physical address, extracts transmission data from said main storage device, produces a communication packet from the extracted data and the communication command and transmits the communication packet to a destination computer; and

wherein said reception section of said communication device receives a communication packet from said switched network, converts a destination logical address into a destination physical address for said main storage device and writes data in the communication packet into the destination physical address.

19. (Currently Amended) An inter-computer network system, comprising:

a plurality of computers connected to each other through a switched network;

each of said computers including a main storage device, a processor for issuing a communication processing command, and a communication device for processing the communication command from said processor and communicating with another one of said computers through said switched network;

said communication device including a transmission section for transmitting a communication to said switched network and a reception section for receiving a communication from said switched network;

each of said transmission section and said reception section including a translation look aside buffer for retaining a plurality of translation look aside buffer entries;

said processor issuing the communication command which includes information of that one of the computers which is a sending source;

said reception section determining one of the translation look aside buffer entries which is to be used in accordance with the computer of the sending source,

wherein said processor does not carry out any address conversion but instead issues out the communication command and a logical address to said communication device; and

wherein an identification number of a processing command in the computer of the sending source is applied to a communication packet by said communication device, and for different communication packets which have the same identification number of the processing command, the same translation look aside buffer entry is used by said reception section of said communication device;

wherein said transmission section of said communication device extracts a communication command from said main storage device in accordance with an instruction from said processor, converts a logical address of data of the sending source in the communication command into a physical address, extracts transmission data from said main storage device, produces a communication packet from the extracted data and the communication command and transmits the communication packet to a destination computer; and

wherein said reception section of said communication device receives a communication packet from said switched network, converts a destination logical address into a destination physical address for said main storage device and writes data in the communication packet into the destination physical address.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUSTIN NGUYEN whose telephone number is (571)272-3971. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DUSTIN NGUYEN/  
Primary Examiner, Art Unit 2454